

Rec'd PCT/PTO 14 OCT 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
23 October 2003 (23.10.2003)

PCT

(10) International Publication Number
WO 2003/087403 A3

(51) International Patent Classification⁷:
G01N 33/53, A01K 67/027, A61P 25/00

C12Q 1/68,

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:
PCT/EP2003/003958

(22) International Filing Date: 16 April 2003 (16.04.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
02008553.6 16 April 2002 (16.04.2002) EP
60/372,424 16 April 2002 (16.04.2002) US

(71) Applicant (*for all designated States except US*): EVOTEC
NEUROSCIENCES GMBH [DE/DE]; Schnackenbur-
gallee 114, 22525 Hamburg (DE).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): VON DER KAM-
MER, Heinz [DE/DE]; Verbindungsstr. 6d, 22607 Ham-
burg (DE). POHLNER, Johannes [DE/DE]; Quittenweg
11, 22175 Hamburg (DE).

(74) Agents: MEYERS, Hans-Wilhelm et al.; Postfach 10 22
41, 50462 Köln (DE).

(84) Designated States (*regional*): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM,
GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

(88) Date of publication of the international search report:
21 May 2004

*For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.*

WO 2003/087403 A3

(54) Title: DIAGNOSTIC AND THERAPEUTIC USE OF A GOLGI PROTEIN FOR NEURODEGENERATIVE DISEASES

(57) **Abstract:** The present invention discloses the differential expression of golgin-245 in specific brain regions of Alzheimer's disease patients. Based on this finding, this invention provides a method for diagnosing or prognosticating a neurodegenerative disease, in particular Alzheimer's disease, in a subject, or for determining whether a subject is at increased risk of developing such a disease. Furthermore, this invention provides therapeutic and prophylactic methods for treating or preventing Alzheimer's disease and related neurodegenerative disorders using a gene coding for golgin-245. A method of screening for modulating agents of neurodegenerative diseases is also disclosed.